Late in the season the leaves of *V. notabilis* become more deeply cleft and much enlarged and dilated, attaining a length of 6–9 cm. and sometimes becoming 10–11 cm. broad.

## THE DATE OF PURSH'S FLORA

By John Hendley Barnhart

A short time ago Mr. Roland M. Harper called my attention to an inconsistency which has crept into several recent publications, inasmuch as they recognize the priority of plate *1599* of Curtis's Botanical Magazine (*Helonias graminea* Ker) over Pursh's Flora (*Veratrum angustifolium* Pursh),* while they take it for granted that Pursh's work (*Conostylis Americana* Pursh) is older than plate *1596* of the Botanical Magazine (*Lophiola aurea* Ker).

At that time the Botanical Magazine was issued regularly on the first of each month, each number consisting of seven or eight plates with their accompanying text, and each plate bearing the date of issue; so it is a simple matter to determine that plates *1596* and *1599* were issued together on the first of November, 1813. Both volumes of the original edition of the Flora Americae Septentrionalis of Pursh bear the date 1814 on their title-pages; and at first sight it would appear quite evident that Ker's two names have priority over any proposed in Pursh's work.

The situation is complicated, however, by the fact that Ker, under *Lophiola aurea* (*pl. 1596*), mentions *Conostylis Americana* as a synonym, and cites the Flora of Pursh by volume and page, without anything to suggest that that work might not be in the hands of the botanical public. From this it is evident, either that Pursh's work was published prior to the date given on its title-pages; or that it appeared in parts, the title-page dates marking the completion of its publication; or that Ker had access to the printed but unpublished sheets.

The first of these alternatives is wholly improbable. Post-dated publications are rare, and the reason is obvious; the fraud

* *Stenanthium gramineum* (Ker) Morong; *Stenanthium angustifolium* (Pursh) Kunth.

is of a kind which benefits no one, and is sure to be detected. If a book should appear on the market now, bearing on its title-page the date 1905, anyone into whose hands it might come during the next few months could detect the error. Similarly, if Pursh's Flora, dated 1814, was offered to botanists in its entirety before the end of the year 1813, the fact would surely have caused comment at the time. On the contrary, various contemporary botanists refer to Pursh's work as published in 1814, with no hint that it appeared earlier.

Turning now to the pages of the Botanical Magazine, we find: that a manuscript name of Pursh, *Iris prismatica*, was published under plate *1504* (N 1812), but with no reference to his Flora; that under plate *1551* (My 1813) the Flora is cited for the first time, but without any page-number; that under various plates (*1566*, *1572*, *1574*, *1579* and *1583*) in the numbers for July, August and September, 1813, the Flora is cited by page, but with the addition of "inedit." or "nondum evulgata," showing that up to the first of September, 1813, at least some portions of the work had not been published; that, beginning with plate *1589* (1 O 1813), the Flora is cited by page, without any reference to its unpublished condition. Under plate *1583* (1 S 1813), however, as early a page as 163 is still cited as "inedit."; and under plate *1592* (1 N 1813) is a reference to "Pursh, whose valuable Flora, speedily to be published, we have been favored with the opportunity of consulting"; under these circumstances, therefore, and in the absence of direct contemporary testimony, there is no reason to suppose that Pursh's work was issued in parts.

If we examine Pursh's Flora, we shall find further interesting evidence bearing upon the case in hand. Under *Iris prismatica*, on page 30, there is no reference to plate *1504* of the Botanical Magazine, and it is not improbable that these early pages of the Flora were in type before the appearance of that plate (N 1812). At the end of the Flora, after the index, is a supplement, containing descriptions of plants that had become known to Pursh while his volumes were going through the press; and following the supplement were seven pages (744–751) of "addenda et corrigenda." These were the final pages of the work — the

last to be printed except the title-pages and, perhaps, the preface — and they seem to have been brought down to the very moment when they were sent to press. In them we find references to many of the plates of the Botanical Magazine which had been published during the few preceding months, including two (*1601* and *1602*) which appeared on the first of December, 1813. The preface, too, is dated "December, 1813," and all of the evidence goes to show that the entire work was ready for issue some time before the end of that month. That being the case, and granting that the title-page date 1814 is correct, it is altogether probable that the two volumes of Pursh's Flora Americae Septentrionalis were first offered for sale, together, some time during the month of *January, 1814*. If so the date of issue of the Flora falls between that of plate *1613* (1 Ja 1814) and plate *1614* (1 F 1814) of the Botanical Magazine.

A few remarks may not be out of place here concerning some of the North American plants which were published in the Botanical Magazine while the Flora was passing through the press.

"*Andromeda floribunda* Pursh" dates from the Magazine (*pl. 1566.* 1 Jl 1813) instead of from the Flora (page 293. 1814).

"*Ipomoea Jalapa* (L.) Pursh" first appeared as a synonym in the Magazine (*pl. 1572.* 1 Au 1813). This, however, according to the most recently formulated American code of nomenclature, does not constitute "publication" of the name in a technical sense.

"*Scilla esculenta* Ker" (Bot. Mag. *pl. 1574.* 1 Au 1813) antedates "*Phalangium Quamash* Pursh" (Fl. Am. Sept. 226. 1814). Although Ker himself expressed some doubt as to the identity of these two species, they were long regarded as the same, and it is only in comparatively recent years (Coville, Proc. Biol. Soc. Wash. **11**: 61–65. 1897) that they have been clearly distinguished. Rafinesque, in proposing the genus *Quamasia* (Am. Mo. Mag. **2**: 265. F 1818), based his *Q. esculenta* upon "*Phalangium Quamash* or *Scilla esculenta*," citing both Pursh's and Ker's names for what was supposed to be the same species. The source of Rafinesque's specific name is thus perfectly evident, and it seems to me that the eastern plant should be called

"*Quamasia esculenta* (Ker) Raf.," instead of entering *Q. esculenta* Raf. as a synonym of the western plant, as Coville has done.

"*Ribes resinosum* Pursh" dates from the Botanical Magazine (*pl. 1583.* 1 S 1813) instead of from the Flora (page 163. 1814).

"*Oenothera Missouriensis* Sims" (Bot. Mag. *pl. 1592.* 1 N 1813) has priority over "*Oenothera macrocarpa* Pursh" (Fl. Am. Sept. 734. 1814). The name published by Pursh had been used in 1813 by Nuttall in Fraser's Catalogue, for what was doubtless the same plant, but with a very brief characterization. It is not unlikely, however, that *O. Missouriensis* and *O. macrocarpa*, treated as synonymous by all recent writers, are actually distinct species. In this connection, a brief note published at the end of the text accompanying plate *1674* of the Botanical Magazine should not be overlooked.

"*Lophiola aurea* Ker" (Bot. Mag. *pl. 1596.* 1 N 1813) has priority over "*Conostylis Americana* Pursh" (Fl. Am. Sept. 224. 1814), and the combination "*Lophiola Americana* (Pursh)" is superfluous. Incidentally it may be mentioned that this binomial, *Lophiola Americana*, published as new by Coville (Mem. Torrey Club, 5: 118. 1894) and consequently sometimes credited to him, was proposed by Wood nearly fifty years earlier (Class-book, ed. 2, 540. 1848), and used by him in the various editions of his Class-book during later years.

"*Sabbatia calycosa* Pursh" dates from the Magazine (*pl. 1600.* 1 D 1813) instead of from the Flora (page 138. 1814).

The date of publication of Pursh's Flora falls between that of the 26th volume of Rees' Cyclopaedia and that of the 27th volume of the same work. In the Cyclopaedia, Smith's first reference to Pursh's work is in the second half of volume 27, under the article "*Pinus.*" Speaking of the number of species, he says: "Mr. Pursh has nineteen in his Flora of North America, just come to our hands," and in discussing the different species, Pursh's work is constantly referred to. As this part of the Cyclopaedia appeared early in the year 1814, the whole of the two following volumes being issued before the end of the same year (according to the researches of Mr. B. D. Jackson, see

Jour. Bot. 34: 307–311. 1896), we have here additional evidence that Pursh's Flora was issued at the *very beginning* of the year *1814*. No case has come to my notice in which the question of the respective dates of Rees' Cyclopaedia and Pursh's Flora complicates synonymy.

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## THE FERNS OF NORTHERN CAPE BRETON

By C. B. Robinson

The fern flora of the peninsula of Nova Scotia is of the same general character as that of New England, differing mainly in the absence of about one third of the species found in the latter. Only one additional form appears, the rare *Schizaea pusilla* Pursh, collected but once, at Grand Lake, near Halifax, by Mrs. Britton.

In view of this, it is worthy of remark that in the northern part of the island of Cape Breton there are two species, one of them widely distributed, which have never been reported from the peninsula, and several others which occur there but rarely.

Northern Cape Breton is a country of great natural beauty. Near both eastern and western coasts are ranges of hills, usually from eight to fourteen hundred feet in height, intersected by numerous brooks and river valleys. Except for these, much of the interior is a high table-land, at the extreme north often peat-bog. The flora though destitute of alpine forms is of great interest, many flowering plants also growing here which are either rarer or missing in the rest of the province.

Ferns grow here luxuriantly and in considerable variety. The three Osmundas reach the extreme north and twenty-six species and two varieties of Polypodiaceæ are with few exceptions very widely distributed.

*Dryopteris Filix-mas* (L.) Schott, which has aroused the most interest among Canadian botanists, is not found at all on the peninsula or in eastern New Brunswick. In Cape Breton it was first discovered upon Salt Mountain, Whycocomagh, by Dr. A. W. H. Lindsay, and subsequently at Aspy Bay, Lake Ainslie,